



1649.  
DOCKET NO.: A0848.70005US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Silence et al.  
Serial No.: 10/534,348  
Confirmation No.: 4929  
Filed: May 9, 2005  
For: SINGLE DOMAIN ANTIBODIES DIRECTED AGAINST TUMOR NECROSIS  
FACTOR ALPHA AND USES THEREFOR  
Examiner: Gregory S. Emch  
Art Unit: 1649

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 7<sup>th</sup> day of September, 2006.

Emily E. Zukauskas

MAIL STOP AMENDMENT

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

- Information Disclosure Statement
- PTO Form 1449 with cited references
- Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 646-8000, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

By:

John R. Van Amsterdam, Ph.D., Reg. No.: 40,212  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2206  
Telephone: (617) 646-8000

Docket No.: A0848.70005US00  
Date: September 7, 2006  
xNDDx



DOCKET NO.: A0848.70005US00

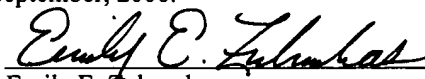
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Silence et al.  
Serial No.: 10/534,348  
Confirmation No.: 4929  
Filed: May 9, 2005  
For: SINGLE DOMAIN ANTIBODIES DIRECTED AGAINST  
TUMOUR NECROSIS FACTOR-ALPHA AND USES  
THEREOF  
Examiner: Gregory S. Emch  
Art Unit: 1649

---

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 7th day of September, 2006.

  
Emily E. Zukauskas

---

**MAIL STOP AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case.

No fee or certification is required.

PART II: Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>	<u>Docket No.</u>
10/534,349	05-09-2005	Silence et al.	*A0848.70006US00

\*A copy of this reference is not provided as the Office has waived the requirement under 37 C.F.R. 1.98(a)(2)(iii) for submitting a copy of a cited U.S. patent application if it is scanned to the Image File Wrapper system and is available on Private PAIR.

The Applicant would like to bring to the Examiner's attention the enclosed search report or other communication from a corresponding or other International or Foreign National Application.

<u>Serial No.</u>	<u>Mailing Date</u>	<u>Type of Communication(s)</u>
EP 02447212.8	April 16, 2003	European Search Report
EP 03447005.4	February 17, 2004	European Search Report
PCT/EP03/07313	March 1, 2004	International Search Report
PCT/EP03/06581	May 25, 2004	International Search Report

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

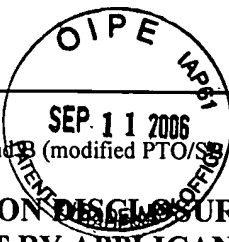
An early and favorable action is hereby requested.

Respectfully submitted,

By:

  
John R. Van Amsterdam, Reg. No. 40,212  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2206  
Telephone: (617) 646-8000

Docket No.: A0848.70005US00  
Date: September 7, 2006  
xNDDx

 FORM PTO-1449/A and B (modified PTO/SB/08) <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 10/534,348		ATTY. DOCKET NO.: A0848.70005US00		
				FILING DATE: May 9, 2005		CONFIRMATION NO.: 4929		
				APPLICANT: Silence et al.				
				GROUP ART UNIT: 1649		EXAMINER: Gregory S. Emch		
Sheet	1	of	2					

#### U.S. PATENT DOCUMENTS

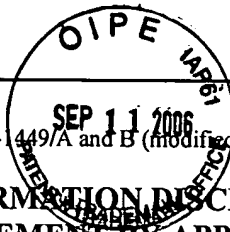
Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	5,976,532		Coller et al.	11-02-1999
	A2	6,419,934	B1	Tobinick	07-16-2002
	A3	6,759,518	B1	Kontermann et al.	07-06-2004
	A4	2002-0054878	A1	Lowe et al.	05-09-2002
	A5	2003-0092892	A2	Frenken et al.	05-15-2003
	A6	2006-0034833	A1	Silence et al.	02-16-2006
	A7	2006-0115470	A1	Silence et al.	06-01-2006

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B1	EP	0 589 840	A1	CIBA Geigy AD; Tanox Biosystems, Inc.	03-30-1994	
	B2	EP	0 952 218	A2	Hoeschst Marion Roussel De GMBH	10-27-1999	
	B3	EP	1 002 861	A1	Unilever PLC	05-24-2000	
	B4	WO	90/10707	A1	Meide Petrus Hendrikus VD	09-20-1990	
	B5	WO	91/02078	A1	Peptide Technology Ltd.	02-21-1991	
	B6	WO	92/01787	A1	Cambridge Antibody Technology Ltd.	02-06-1992	
	B7	WO	94/04678	A1	Casterman	03-03-1994	
	B8	WO	99/09055	A2	Innogenetics N.V.	02-25-1999	
	B9	WO	99/23221	A2	Unilever PLC	05-14-1999	
	B10	WO	02/051351	A1	K.U.Leuven Research and Development	07-04-2002	
	B11	WO	02/057445	A1	National Research Council of Canada	07-25-2002	
	B12	WO	02/079781	A1	Heska Corporation	10-10-2002	
	B13	WO	2004/041862	A2	Ablynx N.V.	05-21-2004	
	B14	WO	2004/041863	A2	Ablynx N.V.	05-21-2004	
	B15	WO	2004/041865	A2	Ablynx N.V.	05-21-2004	
	B16	WO	2004/041867	A2	Ablynx N.V.	05-21-2004	

EXAMINER:	DATE CONSIDERED:
-----------	------------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

 FORM PTO- 449/A and B (modified PTO/SB/08)		APPLICATION NO.: 10/534,348	ATTY. DOCKET NO.: A0848.70005US00
		FILING DATE: May 9, 2005	CONFIRMATION NO.: 4929
		APPLICANT: Silence et al.	
		GROUP ART UNIT: 1649	EXAMINER: Gregory S. Emch
Sheet	2	of	2

### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
	C1	ARBABI GHAHROUDI et al., Selection and identification of single domain antibody fragments from camel heavy-chain antibodies. FEBS Lett. 1997 Sep 15;414(3):521-6.		
	C2	CORTEZ-RETAMOZO et al., Efficient tumor targeting by single-domain antibody fragments of camels. Int J Cancer. 2002 Mar 20;98(3):456-62.		
	C3	DAVIES et al., Antibody VH domains as small recognition units. Biotechnology (N Y). 1995 May;13(5):475-9.		
	C4	DESMYTER et al., Antigen specificity and high affinity binding provided by one single loop of a camel single-domain antibody. J Biol Chem. 2001 Jul 13;276(28):26285-90.		
	C5	D'HAENS et al., Endoscopic and histological healing with infliximab anti-tumor necrosis factor antibodies in Crohn's disease: A European multicenter trial. Gastroenterology. 1999 May;116(5):1029-34.		
	C6	ELS CONRATH et al., Camel single-domain antibodies as modular building units in bispecific and bivalent antibody constructs. J Biol Chem. 2001 Mar 9;276(10):7346-50.		
	C7	HARMSSEN et al., Llama heavy-chain V regions consist of at least four distinct subfamilies revealing novel sequence features. Mol Immunol. 2000 Aug;37(10):579-90.		
	C8	MALLENDER et al., Construction, expression, and activity of a bivalent bispecific single-chain antibody. J Biol Chem. 1994 Jan 7;269(1):199-206.		
	C9	MUYLDERMANS et al., Single domain camel antibodies: current status. J Biotechnol. 2001 Jun;74(4):277-302.		
	C10	ROTE et al., Antithrombotic effects of DMP 728, a platelet GPIIb/IIIa receptor antagonist, in a canine model of arterial thrombosis. J Cardiovasc Pharmacol. 1994 Apr;23(4):681-9.		
	C11	SAELMAN et al., Platelet adhesion to collagen types I through VIII under conditions of stasis and flow is mediated by GPIa/IIa (alpha 2 beta 1-integrin). Blood. 1994 Mar 1;83(5):1244-50.		
	C12	TANHA et al., Selection by phage display of llama conventional V(H) fragments with heavy chain antibody V(H)H properties. J Immunol Methods. 2002 May 1;263(1-2):97-109.		
	C13	VALLE et al., Infliximab. Expert Opin Pharmacother. 2001 Jun;2(6):1015-25.		
	C14	WARD et al., Binding activities of a repertoire of single immunoglobulin variable domains secreted from Escherichia coli. Nature. 1989 Oct 12;341(6242):544-6.		

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_, filed \_\_, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an IDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]

EXAMINER:	DATE CONSIDERED:
-----------	------------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.